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ABSTRACT

In an effort to address the needs of the increasing number of children who are coming to school with physical and emotional health conditions that prevent them from learning to their full potential, school systems have begun to alter the scope and nature of their school health services. Given their direct access to children, families, and school personnel, school nurses are in a unique position and have the skills and knowledge to improve children's health and their ability to learn. In order to effectively meet our nation's challenges and to best safeguard the health of its students, school nurses must have an expanded scope of practice, manage diverse client needs as well as students with more complex health problems, and become key players in the integration of various health care delivery models into the school setting. This paper describes the challenges and issues being faced today by school nurses, examines their roles in new health service delivery models, and offers recommendations for improving and expanding school nursing services. Following an introduction on trends for the future of school nursing, the paper is divided into brief chapters: (1) history of school nursing; (2) school nursing practice today; (3) two models of health service delivery; (4) futures of school nursing; (5) recommendations; and (6) model programs. Contains 28 references. (TJQ)

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# School Nursing: Trends for the Future

*National Health/Education Consortium*
*Occasional Paper #9*

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National Commission to Prevent Infant Mortality
Institute for Educational Leadership

# School Nursing: Trends for the Future

*National Health/Education Consortium*
*Occasional Paper #9*

*by*

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***Florida's Youth/Florida's Future***

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## Case Studies

*Linda, a 3 1/2 year old girl, was diagnosed at birth as having Down syndrome (a chromosomal disorder) with cardiac involvement. Despite a long history of feeding difficulties she has made progress and is now gaining weight. Linda also has had repeated upper respiratory and ear infections since infancy and recently had ear tubes inserted. She is not yet toilet trained but school personnel are assisting the family in their efforts to accomplish this developmental task. Linda is beginning to communicate by using single words. In addition, she is on daily medication for a chronic visual problem.*

**Educational placement**: early intervention program based in an elementary school.

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*Danielle, a 15 year old girl, recently learned that she is three months pregnant. When she informed her mother, Danielle was "thrown out" of the house and is now staying at a homeless shelter 3-4 nights of the week and with high school friends other nights. Danielle has been absent from school four times in the last two weeks.*

**Educational placement**: regular education program in a high school.

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*Juan, a 10 year old boy, has a complex medical history. He was born with spina bifida (incomplete closure of the bony encasement of the spinal cord) and hydrocephalus (an associated condition involving accumulation of cerebrospinal fluid in the skull). As a result, he has limited bowel function, wears a brace for severe curvature of the spine and uses a wheelchair for mobility. In addition, Juan has only one kidney and wears a urinary collection bag under his clothing. This appliance needs frequent emptying during the school day. He takes several daily medications to prevent infection and promote waste elimination. Juan lives in a single parent family with his mother and two brothers. His extended family of aunts, uncles and cousins is 200 miles away in another state.*

**Educational placement**: special education program in an elementary school.

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*David is a 7 year old boy with a three year history of asthma. He has been hospitalized several times during this period for severe asthma attacks. David now takes medication which helps to control his chronic condition. He enjoys gym class but recently began to have some difficulty breathing with exercise or exertion.*

**Educational placement**: regular education program in an elementary school.

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# Issues

### *Asthma*

Despite the fact that asthma is often believed to be a benign condition, it "affects 1 in 12 school-age children in the United States" and "is the most common cause of school absence" (Passarelli, 1992, p 354). Thus, David is one of many children with similar health problems.

---

### *Chronic Health Conditions*

The passage of P.L. 94-142 (Education for All Handicapped Children Act) in 1975 allowed children with chronic health conditions, such as Linda and Juan, to enter school and required specific services to support their attendance. Ten to 15% of children in the United States have a chronic health condition, and 10% of those have severe chronic illness (Passarelli, 1992). These students will quite likely need health services and clinical nursing services in the school setting.

---

### *Single Parent Families*

In the past twenty years births to teens outside of marriage have more than doubled and it is projected that 50-60% of children born today will live in a single parent family during part of their childhood (Rogers & Bianchi, 1992). Danielle's pregnancy is represented in those statistics.

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### *Poverty*

Poverty is a major problem for America's children and a significant factor in the demographics of urban and many rural schools. It has recently been noted that "...in urban schools, nearly 60% of our children are in poverty" ("New faces," 1991, p.3). Increasing numbers of immigrants have entered the United States in recent years. Unlike those who previously came from countries where education was valued, immigrant children today come from countries where survival takes precedence over education ("New faces," 1991).

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# School Nursing: Trends For The Future

*by Carole Passarelli, RN, MS, CPNP*

## Introduction

The four cases just discussed illustrate some of the varied and complex health problems that school systems are dealing with today. In addition to health issues, schools are struggling with problems caused by the changing population (i.e., increasing numbers of immigrants, homeless individuals and families, and changing family structures due to divorce and remarriage) as well as numerous societal issues (e.g., poverty, drug abuse, violence) ("New faces," 1991).

*"We must remember that we cannot separate health from the ability to learn. The two must go together."*

Former Surgeon General Antonia Novello recently stated "We must remember that we cannot separate health from the ability to learn. The two must go together" (Kozlak, 1992, p 476). Further, research has demonstrated that physical and psychological health have a direct impact on children's abilities to succeed academically and socially in the school environment (National Health/Education Consortium, 1992).

Over the years school health services have changed and broadened. In an effort to address the needs of the increasing number of children who are coming to school with physical and emotional health conditions that prevent them from learning to their full potential, school systems have begun to alter the scope and nature of their school health services. New paradigms are evolving for school health, and school systems are developing comprehensive school health programs to address students' myriad needs and problems (Council on Scientific Affairs, 1990; Igoe & Giordano, 1992; National Health Policy Forum, 1992; Pigg, 1992).

As part of school health reform, the traditional role and scope of school nursing practice is being reevaluated. Given their direct access to children, families and school personnel, school nurses are in a unique position and have the skills and knowledge to improve children's health and their ability to learn. Unfortunately, the American school system has only begun to tap the full potential of this skilled and powerful resource. Moreover, during a time when school nurses are needed most, fiscal constraints are substantially decreasing their numbers.

In order to effectively meet our nation's challenges and best safeguard the health of its students, school nurses must have an expanded scope of practice, manage diverse client needs as well as students with more complex health problems, and become key players in the integration of various health care delivery models (i.e., school-based clinics, school-linked services) into the school setting. This paper will describe the challenges and issues being faced today by school nurses, their roles in new health service delivery models, and offer recommendations for improving and expanding school nursing services.

## History of School Nursing

*Changes in society, structure of the family, special education legislation, and changes in the health care and educational systems have increased the need and demand for health services and clinical nursing services in schools.*

Nursing practice in schools today is quite different than it was in 1902 when the first school nurse was employed by the New York City schools (Wold, 1981). At the turn of the century there was an influx of immigrants into the United States resulting in crowded living conditions, poverty and high rates of morbidity and mortality due to infectious and communicable disease (i.e., diphtheria, whooping cough, TB). School nursing developed as an outgrowth of the public health movement at the time and as an extension of public health nursing into the schools for the purpose of both communicable disease control and to ensure that children were healthy and attending school (Woodfill & Beyrer, 1991). Although the overall state of the nation's health has improved dramatically over the years, especially child health, infant mortality rates are still significant and immunization levels of children have decreased. Changes in society, structure of the family, special education legislation, and changes in the health care and educational systems have increased the need and demand for health services and clinical nursing services in schools. (Gelfman & Schwab, 1991).

# School Nursing Practice Today

School nurses currently provide health services for children and youth (3-21 years old, including some from birth to 3 years of age in early intervention programs) with acute, chronic, episodic and emergency health care needs and problems. The school nurse assesses students' health status; identifies health problems which may influence a student's educational program and/or need additional evaluation; develops a health care plan for management of health care problems in the school setting; intervenes in emergencies; administers medications; performs special health care procedures (e.g., gastrostomy tube feeding); provides health education and health counseling for students and families; advocates for students with disabilities; provides health/wellness programs for school employees; is involved in program planning, development, management and evaluation; and provides outreach to families and linkage with community-based health agencies. A typical day for a school nurse might include, *but not be limited to*, the following activities: assessment of abdominal pain, skin rashes, headaches, head injuries; counseling students regarding issues of sexuality, drug use or AIDS; education and supervision of school personnel regarding management of seizures in the classroom; assessment of a possible child abuse situation; management of anaphylaxis in a student or staff member; and support of a child whose father was recently killed (Gelfman & Schwab, 1991). School nursing practice today is varied in scope, responsibility and level of challenge.

Despite an expanded role and need for increased school nursing services, there are significant issues which must be addressed in order to maximize these services for the health and welfare of America's children and youth. These issues are: (1) unclear definition of the school nursing role; (2) educational preparation of school nurses; (3) administration and supervision of school nursing services; (4) funding; and (5) legal/clinical practice dilemmas.

## Role Confusion

Over the years, the focus of practice and responsibilities of the school nurse has varied, shifting repeatedly between the curative and corrective, the preventive and educative, or a combination thereof; the focus depending on such factors as legislation, financial and economic constraints, student needs, school health programs, public/consumer commitment to school health and school nursing services, and the nurses themselves. Varied responsibility is but one of several factors which lead to confusion about the role of the school nurse. As early as the 1930's questions

## What does school nursing practice look like today?

In 1983, national *Standards of School Nursing Practice* were published by the National Association of School Nurses, National Association of State School Nurse Consultants and the American Nurses Association and updated by Proctor, Lordi and Zaiger in 1993 with the document, *School Nursing Practice—Roles and Standards*. These documents define the scope of contemporary school nursing practice (See Table 1).

were raised regarding the contribution of nursing services in schools. This confusion unfortunately still exists today as well. (Oda, 1991; Woodfill & Beyrer, 1991).

*School nursing is at once the best and least understood form of practice on the part of the lay public and nursing professionals.*

In 1979, Oda stated that "school nursing is at once the best and least understood form of practice on the part of the lay public and nursing professionals" (p.437). One year later Igoe (1980) reported that school nursing suffered "from an advanced case of debilitated and confused identity..."(p.307). Despite its ninety year history, school nursing practice in the 1990's is still considered to have an "invisible problem" (Oda, 1991, p.26). However, a recent report on a Department of Education survey in 50 states notes that even though the school nurse role was not clearly understood or defined there is *some* understanding of what school nurses do (Thurber, Berry & Cameron, 1991).

Role confusion in school nursing is also influenced by other factors — the practice setting and educational preparation of the school nurse. Provision of health care in a non-health care setting (i.e. the school) provides some unique challenges. The primary mission of the school system is to educate the student, not provide health care. The goal of health care services in the school is directed toward promoting optimal student wellness and enhancing the educational program of the student. Therefore, translation of the individual student's health problems into educational relevance or elucidation of how a specific health problem influences a student's educational program is critical. This may be difficult for the school nurse to understand or operationalize since nurses have been prepared to deliver health care in settings that have health care as their mission. It is also difficult for the educator to understand the implications of specific health problems for the student's educational program. Therefore, the educator may not comprehend the need for nursing collaboration and consultation regarding a student.

## Table 1 — Standards of School Nursing Care

| | |
|---|---|
| **Standard I:** | The school nurse utilizes a distinct clinical knowledge base for decision-making in nursing practice. |
| **Standard II:** | The school nurse uses a systematic approach to problem-solving in nursing practice. |
| **Standard III:** | The school nurse contributes to the education of the client with special health needs by assessing the client, planning and providing appropriate nursing care and evaluating the identified outcomes of care. |
| **Standard IV:** | The school nurse uses effective written, verbal and nonverbal communication skills. |
| **Standard V:** | The school nurse establishes and maintains a comprehensive school health program. |
| **Standard VI:** | The school nurse collaborates with other school professionals, parents and care givers to meet the health, developmental and educational needs of clients. |
| **Standard VII:** | The school nurse collaborates with members of the community in the delivery of health and social services, and utilizes knowledge of community health systems and resources to function as a school-community liaison. |
| **Standard VIII:** | The school nurse assists students, families and the school community to achieve optimal levels of wellness through appropriately designed and delivered health education. |
| **Standard IX:** | The school nurse contributes to nursing and school health through innovations in practice and participation in research or research-related activities. |
| **Standard X:** | The school nurse identifies, delineates and clarifies the nursing role, promotes quality of care, pursues continued professional enhancement, and demonstrates professional conduct. |

Note: From *School Nursing Practice—Roles and Standards* by S. Proctor, S. Lordi and D. Zaiger, 1993. Scarborough, Maine: National Association of School Nurses. Copyright 1993 by National Association of School Nurses. Reprinted with permission.

Due to the nature of the education setting the school nurse is often the only health care professional in the building and is geographically as well as professionally isolated from nursing peers. School nursing practice is very independent and support from school nurse colleagues and other health professionals may not be readily available.

## Educational Preparation

School nurses vary in educational preparation from licensed practical nurses to masters prepared registered nurses. "Currently there are approximately 26,000 registered professional nurses working in 15,577 public school districts" (Igoe, 1992, p. 277). However, due to the lack of a comprehensive federal or state data system, the specific credentials of existing school nurses can not be determined.

Differing opinions exist regarding the appropriate educational preparation of school nurses. Throughout the history of school nursing, recommendations have been made regarding the need for school nurses to have at a minimum a baccalaureate education with additional preparation in health education (Regan, 1976). The controversy regarding the appropriate educational preparation of school nurses continues to the present day. In a recent national survey of the Department of Education, Thurber, Berry and Cameron (1991) note that of the 19 states responding, only 10.5% require a baccalaureate in nursing and 31.6% require a baccalaureate in nursing plus certification as minimal educational levels of preparation for school nursing. At this point in time there also "is no standard minimal educational level required for school nursing" (pp. 139-140). Diversity in nursing preparation reinforces an unclear role definition and decreases the possibility of a standardized school nursing role operationalized according to a conceptual framework of practice.

What level of educational preparation is necessary for school nursing practice? The National Association of School Nurses (1990) affirmed that the baccalaureate degree from an accredited college or university should be the preparation for entry into school nursing. Given the nature and complexity of student health problems and nursing practice today, the level of knowledge, skill and decision making necessary in school nursing practice demands the competencies acquired in a baccalaureate in nursing program. Additionally, some nursing leaders have recently noted the need for school nurses to be prepared at a master's level (Proctor, Lordi & Zaiger, 1993).

What curriculum is appropriate to include in baccalaureate nursing programs for school nurses? Some preliminary answers to this question were recently obtained from school nurse administrators. Despite disparity among their responses some commonalities were noted, such as: child growth and development, education law, computer skills, and interdisciplinary team and case management skills (Oda, 1993). In addition, the National Association of School Nurses recommends that courses in special education, the family, community health nursing and health counseling and education be included.

## Administration and Supervision

Another recurring issue that needs to be addressed is the administration and supervision of school nursing services — a topic that has also generated differing opinions over the years and remains an ongoing issue today (Dithridge, 1966; Humes, 1975; Igoe & Campos, 1991). Organization of education systems provides an administrative structure different from that of health care systems. School nursing services are frequently positioned under the administration of a non-health care professional and there may not be direct accountability for nursing personnel to a nursing supervisor. Igoe & Campos (1991) reported the results of a survey of 1,546 school districts with an identifiable school health program, and in only 60% of the responses was the major field of the person in charge of school nursing listed as nursing. Administration, education and health education were the other frequently reported fields of those in an administrative/supervisory capacity. Thus, discipline specific supervision, consultation and role modeling may not be available to the school nurse.

Should the administration of school health services be housed within the education department or the health department? Should school nurses be supervised by an educational administrator or a nurse administrator? In resolving this thorny issue, consideration must be given to the "unique political context and governance structure within which public schools operate" (Usdan, 1990, p. 139) and the complex nature of nursing practice in schools today.

## Funding

*The economics of school nursing services is not a new issue; it is a recurring and critical one.*

Economics is a major consideration in the provision of school nursing services. Funding for school health services (including nursing personnel) is usually generated from education dollars (set by town/city budget). The number of school nurse positions and their educational preparation level is often determined by the availability of budget monies rather than by student or community health care needs. At present, sixteen states have legislation that school health services be provided by a registered professional nurse and two states have mandated a specific student to nurse ratio. Even with legislation there is only reasonable assurance that professional registered nurses will be utilized (B. Farquhar, personal communication, October 30, 1993). Historically, school systems have faced cycles of alternating economic prosperity and constraint and, therefore, school nursing services have experienced stability of services as well as elimination of positions due to budget cuts. The economics of school nursing services is not a new issue; it is a recurring and critical one. In a number of states, recent efforts are underway to implement new financing mechanisms (including Medicaid dollars) and explore creative, innovative blending of funding streams (Igoe, 1992) to address this problem.

## Legal/Clinical Practice Dilemmas

Due to the nature of school health services, legislation and current school nursing practice, numerous professional-legal dilemmas have recently emerged. These dilemmas relate to school health records, collection, storage and release of confidential student health information, delegation of nursing care responsibilities to non-licensed personnel in the school setting and a number of other issues (Gelfman & Schwab, 1991; Schwab & Gelfman, 1991). To address these complex issues some states have formed task forces to study specific dilemmas and provide direction and guidelines for nurses, school administrators and others. Clearly, however, the work will be neither brief nor easy.

# Two Models of Health Service Delivery

In response to the many forces affecting children and their health and educational outcomes, school systems have begun to redesign school health services and delivery systems in order to address primary health care access for students and to better provide services to those at risk, and the uninsured or underinsured (Igoe, 1992; National Health Policy Forum, 1992; Oda, DeAngelis, Meeker & Berman, 1985). One of these school health service delivery models is the school-based clinic or school-linked clinic.

## School-Based Clinic

The school-based clinic movement began over two decades ago in the late 1960's with the establishment of a West Dallas, Texas high school clinic to provide comprehensive services for adolescents. Current estimates show that there are approximately 300 school-based clinics operating in elementary, middle and high schools and 20 school-linked clinics. Many other school-based clinics are being planned throughout the country.

School-based clinic staffing usually includes nurse practitioners, part-time physicians and social workers who provide primary health and mental health services to students. Administration and fiscal management of the clinics is most often separate from the school system. Funding is provided by a variety of sources, both private and public, including state health departments, Maternal and Child Health Block Grants and city and county governments. Currently, reimbursement (Medicaid and private insurance) for school-based clinic health services has been minimal, even though school-based clinics have been shown to increase access to health care for those who are uninsured or without an identifiable source of care (National Health Policy Forum, 1992).

To "establish clinics at just 5% of the 80,000 public schools nationwide would create an immediate demand for roughly 4,000 nurse practitioners" (National Health Policy Forum, 1992, p.7) prepared to provide services with a specific focus on child and adolescent health. Academic programs preparing nurse practitioners today do not graduate sufficient numbers to meet current demands, and with expansion of school-based clinics there is the potential for limited availability of personnel.

Will the expansion of school-based clinics affect the existence and role of school nurses? The decrease in numbers of school nurses (now 26,000), largely due to budget cuts, is worrisome as it comes at a time when the need for clinical nursing services in schools is on the rise (Igoe, 1992). It is tempting to believe that school nursing services and school-based clinics are essentially the same and that school-based clinics can substitute for school nursing services. This is a fallacy. In actuality, they are structurally separate, but can and do function as *complementary* services in exactly those settings where the needs of the population benefit most from the collaboration between school nursing services and community health care agencies. One can certainly argue that more school nurses are needed to provide essential health services, especially in view of the fact that not all schools need or will have a school-based clinic.

*It is well known that school nurses can and in fact do play an important role in school systems that have integrated school-based clinics and school-linked services into the delivery of school health care.*

It is well known that school nurses can and in fact do play an important role in school systems that have integrated school-based clinics and school-linked services into the delivery of school health care (See Model Programs). In these systems there is collaboration of the nursing personnel providing traditional services with those providing expanded primary comprehensive health care; the school nurse acts to triage and refer students to the clinic, follows up and monitors health problems, and serves as liaison with families, school personnel and community agencies. Thus, the expertise of personnel is maximized through a model of integrated services specifically designed to meet the health care needs of the population served.

## Family Health Center

While the school-based or -linked model is a fairly well established one, another school health service delivery model is still largely in the planning stage. The proposed family health center, located at or near schools, is a new model designed to deliver primary health care that is family-focused, easily accessible and linked with other community health care delivery system components. "These family health centers will offer 'one-stop shopping'- integrating many community services, including health care, in one location (e.g. Medicaid eligibility; housing assistance; WIC food distribution)" (Igoe & Giordano, 1992, p. 9). It is envisioned that traditional school health programs will be transformed into community family health centers, and school nurses will be key players in implementing this model of health care delivery in many areas. To actualize this concept it will be necessary to establish funding mechanisms as well as garner wide-

spread program support, develop information and record systems, and prepare clinical personnel for new roles in the delivery system (Igoe & Giordano, 1992).

## Future of School Nursing

In order to develop a more complete picture of the evolving role of the school nurse we must also consider what societal and health care trends are currently evident and how they will influence school nursing in the future. The trends listed below are landmarks of the future health landscape:

- **expansion of technology:** within recent years the development of new equipment and information has increased the need for school nurses to have greater technological expertise (i.e., computer literacy, etc.)
- **changing disease trajectories:** as the progression and course of some diseases become more chronic (e.g., AIDS) there will be a need for greater knowledge and skill in dealing with complex health care problems in schools
- **shift of health care delivery to the community setting:** the efficiency and access of community-based care delivery, reinforced by the likely outcomes of national, state and local system reforms, will require school nurses to have greater program development and management skills
- **paradigm shift to leadership through collaboration:** the structure of future health care delivery will highlight the need to hone interdisciplinary and intradisciplinary team work skills
- **inquiry regarding client health care outcomes:** the trend toward integrating health services in the school setting will necessitate that the school nurse develop additional research skills and implement relevant studies of student health outcomes in the school setting (Schutzenhofer, 1992)

Naturally, these are but the broadest and most easily identifiable trends, but they serve to highlight the scope and impact of the forces that will influence the future of school nursing.

This paper has attempted to highlight some historical developments as well as the significant issues which influence school nursing and school health care delivery. As we anticipate health care reform and move into the 21st century, careful consideration

should be given to ensuring the provision of cost-effective, comprehensive school nursing services and school health programs for America's children and youth.

## Recommendations

1. Establish consistent educational preparation for entry into school nursing practice with the minimum requirement as a baccalaureate degree. As school nursing continues to evolve as a specialty practice, master's level preparation will be increasingly needed. These standards will provide school nurses with the breadth and depth of education required to deal with the growing complexity and nature of nursing practice.

2. Design graduate level curricula at academic institutions which respond to the broad scope of school nursing practice by including nurse practitioner preparation, content related to education systems, research and program development and management skills. In addition, programs need to be flexible and provide for matriculation by the employed nurse. It is critical to ensure clinical nursing competence as well as understanding of the implications of health on education.

3. Develop consistent state certification mechanisms which will help to standardize school nursing practice.

4. Establish organizational structures in school systems to provide for clinical supervision and administration of nursing services by nurse clinicians/administrators. If the size or structure of a school system does not lend itself to such a design then consideration should be given to establishing clinical consultation for school nursing personnel with a master's prepared clinician in a community agency (VNA, hospital clinic, neighborhood health center) or a university school of nursing. The availability of nursing expertise through supervision and/ or consultation is critical for the provision of safe and appropriate health care services for students as well as professional growth for the individual school nurse. This design is not meant to exclude educational administration from active participation in the supervisory process of school nurses but to determine the appropriate elements of that participation.

5. Develop a comprehensive national data bank of nurses working in schools so information is available to monitor trends and assist in policy development.

6. Design and implement funding mechanisms for school health services to not only consolidate existing monies but explore creative, innovative funding streams taking into account third party reimbursement for nursing services as well as cost effective delivery models.

7. Examine the current legal/professional nursing practice dilemmas in school settings to establish guidelines as well as propose appropriate legislative changes which will ensure the provision of safe student health care, direct clinical nursing practice in schools and protect individual and family rights.

8. Encourage school nurses to establish intradisciplinary and interdisciplinary collaboration and working relationships with colleagues and others to provide comprehensive health care for students in the school setting.

9. Establish partnerships between school systems and universities/colleges to promote interdisciplinary professional understanding (nursing, medicine, education, social work, psychology, occupational and physical therapy, speech/language therapy and guidance). Creative methods of educational preparation (e.g., interdisciplinary graduate student seminars), consultation and collaborative research.

10. Establish a national task force of school nursing leaders from the academic setting, practice arena and professional organizations to explore the direction of school nursing for the 21st century; with a focus on research and policy needs, personnel preparation, funding, school health service delivery models and other significant issues.

11. Establish ongoing dialogue and working relationships between community, health, and education leaders to bridge the gap between the health care delivery system and education system.

# Model Programs

*San Antonio Independent School District*
*Department of Student Health Services, Pediatric Extension Clinics*

During the 1989-90 school year the first elementary school primary care clinic was established in the San Antonio, Texas Independent School District to provide health care for underserved students. It was named the Pediatric Extension Clinic to emphasize the extension of primary pediatric care into the community. Through a cooperative arrangement with the University of Texas Health Sciences Center a board-certified pediatrician was assigned to the clinic and now provides coverage a half day a week. Since that time three additional Extension Clinics staffed by pediatricians have been established at other school campuses in the district.

The staffing pattern of the San Antonio School Health Services is essential to the success of the Pediatric Extension Clinic concept. Advanced nurse practitioners are assigned to a cluster of schools while school nurses are assigned to each individual campus. The availability of the school nurse to the school population on a daily basis encourages familiarity and trust between students, families and the clinic services.

Parents choose to have their children become participants in the Extension Clinic. If a student is eligible for Medicaid services and the parent requests that EPSDT services be provided at school, an appointment is established for the student and parent with the nurse practitioner. Prior to the visit the school nurse obtains the student's health history, conducts appropriate developmental screening and reviews the health record for additional information to be obtained during the visit. The advanced nurse practitioner performs the physical exam and required laboratory procedures. Immunizations are provided and health teaching is conducted. If health problems are detected the student may be reappointed for the nurse practitioner or referred to another health care provider.

In addition to providing EPSDT services the nurse practitioner examines ill children and provides treatment, as appropriate. The school nurse also plays an important role in identifying students who are ill, referring them to the nurse practitioner, as needed. In addition, the school nurse is responsible for follow-up services. Nurses who have Extension Clinics are assigned a health aide who assists with student visits and performs routine screening. The school nurse's role is critical in providing linkages with community services (i.e., WIC program, Head Start etc.).

The school district employs a physician and has an EPSDT and primary care provider number for the district. Parents retain free choice of using their own public or private health care provider or the nurse practitioner at the school campus. During the 1991-92 school year the six advanced school nurse practitioners added primary heath care to the services offered at the campuses where they conduct clinics a half day a week. They have prescriptive authority, receive supervision as needed from the district physician, and provide care for the same kinds of health problems seen at the physician-directed Extension Clinics.

The San Antonio School District has long employed advanced school nurse practitioners. Their responsibilities have been rearranged to allow time for the additional primary health care activities. Physicians are paid from funds generated by grants plus monies received from EPSDT and primary care services. So far, the program has generated money for the school district. This would not be true if new advanced school nurse practitioners or school nurses had to be hired or if building modifications were necessary.

**Contact:** For additional information contact: Gladys Baker, MSN, RN, Nursing Coordinator, San Antonio Independent School District, (210) 224-1823.

# Model Programs

*Saint Paul Minnesota Public Schools*
*Student Wellness Programs*

The Saint Paul School District's Student Wellness Programs provide a variety of health related programs with a unique focus; for example, a program for students who are homeless and a daycare center for adolescent parents. These programs provide nurses the opportunity to demonstrate the broad scope of their knowledge and skills in the delivery of health care in the school setting.

## Crystal
## (Project for Homeless Students)

In this program a school nurse in the Saint Paul School District works with a homeless shelter and the schools to facilitate the enrollment of children into school and to provide resources to the families of children who have health and social service needs. The project is based on the premise that frequent moves are disruptive to children's lives, their sense of security and ability to learn. The program assists families to access necessary information from other school districts, expedite entrance into school and plan for specific health care needs in the school setting.

## AGAPE

A project for adolescent parents which began in 1985 at one site in the Saint Paul School System has expanded to four sites with a slightly different focus in each setting. One of the sites is the AGAPE School, an alternative public school serving primarily pregnant and parenting young women.

At the school is a large, fully licensed day care program, a collaborative project between Saint Paul Schools and Children's Home Society of Minnesota. Child care personnel are employed by the Children's Home Society and the school nurse is employed by the school system. The day care can accommodate 40-45 infants and 14 toddlers. The role of the school nurse is interesting and varies from helping the students to apply for day care assistance to the provision of individual and group counseling to adolescent parents.

Once students begin using the day care center, the school nurse serves as a case manager for them and their children. School and child care attendance is monitored and encouraged, as are parent-child interactions. The nurse assesses and monitors the children's health, development and immunization status and has many opportunities for informal parent education. Parents are offered support by the school nurse, child care staff, other AGAPE support staff, community resource people, or sometimes all of the above, and are encouraged to be in a parent group (some led by the school nurse) or another support group. Most of the adolescent parents also participate in parent education classes at AGAPE School.

Another role for the school nurse in this setting is consultative as the nurse monitors health and safety practices within the day care center to assure that city and state licensing standards are upheld. Collaboration and communication with the child care director and staff, AGAPE School personnel and community resource people is essential.

**Contact:** For additional information contact: Wanda Miller, RN, MSN, Administrator, Student Wellness Programs, Saint Paul Public Schools, (612) 228-3651.

# Model Programs

*Dallas Independent School District*

*Integrated Services, School-Based Clinics, School-Linked Services*

The Dallas, Texas Independent School District over the years has established a number of school-based clinics and school-linked services within a system of integrated services. Three of their models will be described here.

## School-Based Clinics

Three neighborhood clinics (West Dallas Youth Clinic, Saldivar Children's Clinic, and Carver Health Center) established in 1969 are the oldest and most comprehensive school-based health services in Dallas. The buildings are on school campus sites and the project reimburses Dallas Independent School District for maintenance and utilities and pays for its own security, pest control and repairs.

The target population is medically underserved, located in a rapidly declining 14 square mile inner-city area of Dallas. The 1990 census indicated a population of 27,439 with approximately half the population African-American and half Hispanic. Over 80% live below federal poverty standards.

For 1992, the funding sources were Maternal and Child Health Block Grant, Texas Department of Health, MCH Healthy Tomorrows Project, Dallas County Hospital District, United Way, Medicaid, vendor drug and patient fees.

A health care team is assigned at all three clinic sites 8 hours daily. The team consists of a physician, one or two nurse practitioners or physician assistants, a social worker, a case aide, a medical assistant and a clerk. The nurse practitioners have prescriptive authority. Adolescent reproductive services are also provided. An OB/GYN nurse practitioner is available on site two days a week and an obstetrician one day a week. In addition, linkages are well established with the County Hospital (Parkland), Children's Medical Center and other health care and community service organizations. The three school-based clinics (one high school and two elementary) are open five days a week from 8:00 AM to 5:00 PM with limited evening services two days a week and 24 hour on-call service. Though the schools close in the summer, clinics remain open to serve the community.

There is a school nurse employee of the Dallas Independent School District in each elementary school served by the clinics and in the high school on a part-time schedule. These nurses maintain traditional school health service responsibilities as required by federal and state law as well as local school board policy. They have the added advantage of an "on campus" referral source for comprehensive care of students. Working closely with the school-based clinic, the nurse has a responsibility to insure that services are not duplicated, assists with obtaining parental permission forms for clinic services and triages students to team members, as appropriate.

Health maintenance or preventive services are usually provided by the nurse practitioner. The physician sees identified problems, thus avoiding referral or reappointment. Laboratory services are provided on site and through a local clinical reference lab. Missed appointments are managed through phone contact or home visits and transportation assistance is provided when needed. Acute care is handled on an appointment or walk-in basis, thus minimizing hospital emergency room utilization and helping to prevent complications.

The entire team provides care for children with chronic illness through a case management process. Family dynamics, support networks, special problems posed by severe or terminal illness, and transportation are considered an integral part of the management of these children.

## School-Linked Services

The Lemmon Avenue Bridge (Youth Impact Center) provides comprehensive support services for teens in two Dallas Independent School District high schools and three middle schools. The Bridge has 22 co-locators — traditional youth service agencies that have signed agreements to provide in-kind donated time for youth. Services are broad based and include health services, education and prevention programs, crisis intervention counseling, dental education, volunteer training, youth leadership training, group activities and other youth and family services. The overall mission of the Lemmon Avenue Bridge is to improve all aspects of young people's health and well-being and to provide daily living skills preparation so adolescents can cope with day-to-day pressures and be prepared to make responsible decisions in their lives and in their communities. Target population ages are 12-18 year olds and there is no financial eligibility criteria.

## Traveling Adolescent Health Care Team

Traditional health services in seven Dallas Independent School District secondary schools have been expanded by a collaborative effort of the School District and the Dallas County Hospital District. Comprehensive services are provided by the school nurse and a Traveling Adolescent Health Care Team. The team members usually include a nurse practitioner or physician assistant, social worker and health assistant. A physician consultant is also available to the team. Funding for the teams and the physician consultant is provided by the Dallas County Hospital District, MCH Block Grants, Texas Department of Health, United Way, Medicaid and other grants. Teams are located in the school clinic on a schedule of 4 to 16 hours each week.

The school nurse is responsible for clinic management, nursing assessment and management of minor injury and illness, evaluation of severe trauma or medical emergencies, communicable disease control, monitoring student compliance with state immunization laws, administration of prescribed medications, student health appraisal (including vision, hearing and scoliosis screening), performing and teaching special procedures for students with special health care needs, crisis intervention and other health emergency situations which occur. She serves as triage agent to the Traveling Adolescent Health Care Team and assists in scheduling appropriate student appointments.

Health services provided by the Team include: athletic physicals, EPSDT physicals, care of minor or acute illness, immunization administration, education and counseling services, social services, pregnancy testing, prenatal and postpartum visits, family planning and counseling, STD testing/treatment and identification and management of gynecological problems.

Students are required to have written parental permission for services.

**Contact:** For Additional information contact: Marilyn Marcontel, RN, MA, CSN, Coordinator of Nursing, School Health Services, Dallas Independent School District, (214) 824-1620.

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# National Health/Education Consortium

Good health is a significant determinant of a child's ability to learn and succeed in school. The health and education sectors, however, have historically approached programs and services for children from different perspectives. Recognizing the need for better integration of health and education programs for children, the National Commission to Prevent Infant Mortality and the Institute for Educational Leadership organized the NATIONAL HEALTH/EDUCATION CONSORTIUM in May 1990.

The project is unique in that it has brought together leaders from 57 national health and education organizations, representing nearly 11 million constituents, to bridge the gap between the worlds of health and education and to generate unified action for children. Promoting the full potential of children and providing them with the best opportunities for success will require changes in the systems which currently provide health and education services. Reforms are needed to develop more collaborative and cohesive policies and programs, unify agencies and funding streams, and provide a more comprehensive approach to children's problems.

Toward this end, the NATIONAL HEALTH/EDUCATION CONSORTIUM's activities focus on three major goals: to improve public policy in addressing the need for a better coordinated health and education delivery system; to strengthen communication and dissemination of information between health and education activities and policymakers; and to identify exemplary program models and practices which more effectively integrate health and education services. The Consortium involves educators, health professionals, policymakers, administrators, civic leaders, advocates, and parents in its efforts to bring together the health and education communities in a more integrated fashion.

The Consortium is able to attract high profile business, political, health and education leaders to give visibility to and implement its mission at the federal, state, and local levels. It does not represent any particular special interest group, but can bring to bear the weight of national association consortium members on behalf of its mission. In addition, the consortium creates state and local networks across the country that will plant the seeds for similar collaborative efforts at those levels.

The foundation of the Consortium's efforts can be found in the report, *Crossing the Boundaries between Health and Education*, which documents clinical research and programs that exemplify the relationship between children's health and their learning potential. To complement this report, the Consortium releases a series of occasional papers and special reports which focus on various topics relating to health and education.

The NATIONAL HEALTH/EDUCATION CONSORTIUM is supported by The Prudential Foundation, the Honeywell Foundation, the AT&T Foundation, Metropolitan Life Foundation, and the Procter & Gamble Fund. Additional support has been provided by the U.S. Department of Health and Human Services, and the U.S. Department of Education.

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# National Health/Education Consortium Members and Profiles

**American Academy of Family Physicians:** 71,000 physicians

**American Academy of Pediatrics:** 45,000 pediatricians

**American Association of Colleges for Teacher Education:** represents 706 member institutions teacher education programs

**American Association of School Administrators:** 18,517 school administrators

**American College of Nurse-Midwives:** 3,500 certified nurse-midwives

**American College of Obstetricians and Gynecologists:** 31,000 obstetricians and gynecologists

**American Dental Association:** 140,000 dentists

**American Federation of Teachers:** 750,000 teachers, para-professionals (teacher aides), school-related personnel, healthcare workers, federal and state employees

**American Hospital Association (MCH Section):** 5,870 hospitals and physicians

**American Indian Health Care Association:** represents 36 programs and clinics which focus on the health care of American Indians

**American Medical Association:** 300,000 physicians

**American Nurses Association:** 201,000 registered nurses

**American Public Health Association:** 30,977 physicians, nurses, therapists, health technicians, health support personnel, and other health professionals

**American School Food Service Association:** 65,000 school food service professionals

**American School Health Association:** 4,000 health educations, nurses, physicians, and dieticians

**American Speech-Language-Hearing Association:** 74,000 speech-language pathologists, audiologists, scientists, researchers, and educators

**Association for the Care of Children's Health:** 4,200 nurses, child life workers, and parent leaders

**Association for Supervision and Curriculum Development:** 153,000 teachers, school administrators, college professors, and school board members

**Association of American Medical Colleges:** 126 U.S. medical schools, 450 teaching hospitals, and 92 academic professional societies

**Association of Maternal and Child Health Programs:** represents 269 maternal and child health programs in 50 states and U.S. territories

**Association of Schools of Public Health:** represents 14,500 deans, faculty, and students of schools of public health

**Association of State and Territorial Dental Directors:** represents 44 state and territorial dental directors

**Association of State and Territorial Health Officials:** represents the 58 health officers from each of the United States and its territories

**Association of Women's Health, Obstetric, and Neonatal Nurses:** 24,700 nurses

**Council of Chief State School Officers:** represents 56 public officials who head departments of elementary and secondary education in each state and extra-state jurisdiction

**The Council of Great City Schools:** represents 47 of the largest urban public school districts in the United States

**Healthy Mothers, Healthy Babies Coalition:** represents 95 non-profit health education groups, and state and local education groups

**National Alliance of Black School Educators:** 4,000 African-American teachers for Grades K-12

**National Association for Asian and Pacific American Education:** 594 members representing administrators, teachers, institutional aids, social workers, mental health workers, and students among others

**National Association for the Education of Young Children:** 77,000 members representing a wide range of early childhood professionals

**National Association for Partners in Education:** 55,000 volunteers, presidents and executives of private businesses, teachers, and administrators

**National Association of Children's Hospitals and Related Institutions:** represents 108 hospitals

**National Association of Community Health Centers:** represents 600 health care facilities

**National Association of Elementary School Principals:** 36,000 elementary school principals, middle school principals, school superintendents, teachers, professors, and instructors

**National Association of Hispanic Nurses:** 1,000 Hispanic nurses

**National Association of Pediatric Nurse Associates and Practitioners:** 4,200 pediatric nurse associates and practitioners

**National Association of School Nurses, Inc.:** 8,000 school nurses

**National Association of Secondary School Principals:** 41,000 secondary school principals, administrators, guidance counselors, activities directors, and college professors

**National Association of Social Workers, Inc.:** 145,000 members in all fields of social work

**National Association of State Boards of Education:** represents 600 state boards of education and their members

**National Association of WIC Directors:** 624 state directors, nutrition coordinators, and local agency directors

**National Black Nurses Association:** 7,000 African-American nurses

**National Coalition of Hispanic Health and Human Services Organizations:** 12,000 organizations serving the Hispanic population, representing Hispanic physicians, nurses, and students

**National Community Education Association:** 1,600 teachers, superintendents, administrators, community education directors and coordinators, faculty and administrators of teacher education institutions and programs, community activists, private businesses, and state administrators

**The National Congress of Parents and Teachers:** 6.8 million parents, K-12 classroom teachers, principals, school administrators, and students

**National Education Association:** 2.1 million K-12 classroom teachers, professors, educational support personnel, and students

**National Elementary School Center:** represents 500 child-serving professionals

**National Head Start Association:** 150 nationwide agency members and 30 individual members

**National Indian Education Association:** 2,700 members, most of whom are Native American educators

**National Medical Association:** 16,500 minority physicians

**National Mental Health Association:** 550 local affiliate mental health associations representing mental health care providers, clients, and community health care centers

**National Perinatal Association:** 6,000 physicians, nurses, nurse-midwives, social workers, and consumers of perinatal services

**National Rural Health Association:** represents 2,000 community, migrant, and homeless health centers and their staffs

**National School Boards Association:** represents 52 state school board associations

**National School Public Relations Association:** 2,200 teachers, principals, administrators, retired teachers, students, and public relations personnel

**Society for Neuroscience:** represents 21,219 neuroscientists

**Zero to Three – National Center for Clinical Infant Programs:** represents 7,500 programs for high risk children and families, as well as individuals

**This document does not necessarily reflect the viewpoints or positions of the Consortium's members.**